

1. (Canceled)

2. (Cancelled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Currently Amended) A system for checking a data transfer for an error, the system comprising:

means for identifying a boundary of the data transfer based on a first assumption that a first two bytes of a transmission control protocol (TCP) payload includes a marker with protocol data unit alignment (MPA) protocol length field; and

means for calculating a cyclical redundancy check (CRC) value based on the first assumption and a second assumption that the data transfer includes at least one aligned direct data placement (DDP) segment, wherein the calculating means further calculates a TCP checksum value, and wherein the calculating means calculates the CRC value and the TCP checksum value in parallel; and

wherein the data transfer includes an MPA length field that includes an entire MPA frame including: fourteen most-significant bits (MSBs) of the MPA length field, an upper layer protocol (ULP) payload length, all MPA markers, CRC data, two least-significant bits (LSBs) of the MPA length field, and any valid bits in MPA padding.

10. (Cancelled)

11. (Original) The system of claim 9, wherein the identifying means includes means for fetching an Initial Sequence Number from a connection context and determining a remainder between the Initial Sequence Number and a data transfer sequence number.

12. (Original) The system of claim 9, wherein an MPA request/reply frame includes a correction factor including a number of bytes needed to make an initial sequence number of the data transfer word-aligned.

13. (Original) The system of claim 12, wherein the identifying means includes means for implementing a sequence number mod 512 process.

14. (Cancelled)

15. (Currently Amended) The system of claim 9 [[14]], further comprising:

means for determining whether a first word of the MPA frame equals zero;

means for reading the MPA length field from a next word where the first

word equals zero; and

means for reading the MPA length field from the first word where the first word does not equal zero.

16. (Original) The system of claim 9, wherein when the data transfer does not include an MPA marker.

17. (Currently Amended) A computer program product comprising a computer useable medium having computer readable program code embodied therein for limiting a number of re-transmission attempts for checking a data transfer for an error, the program product comprising:

program code configured to identify a boundary of the data transfer based on a first assumption that a first two bytes of a transmission control protocol (TCP) payload includes a marker with protocol data unit alignment (MPA) protocol length field and wherein the data transfer includes an MPA length field that includes an entire MPA frame including: fourteen most-significant bits (MSBs) of the MPA length field, an upper layer protocol (ULP) payload length, all MPA markers, CRC data, two least-significant bits (LSBs) of the MPA length field, and any valid bits in MPA padding;

program code configured to calculate a cyclical redundancy check (CRC) value based on the first assumption and a second assumption that the data transfer includes at least one aligned direct data placement (DDP) segment; and

program code configured to calculate a TCP checksum value in parallel

with calculating the CRC value.

18. (Cancelled)

19. (Original) The program product of claim 17, wherein an MPA request/reply includes a correction factor including a number of bytes needed to make an initial sequence number of the data transfer word-aligned.

20. (Original) The program product of claim 19, wherein the identifying program code includes program code configured to implement a sequence number mod 512 process.